

KINGSTON RECOVERY PROGRAM MANAGEMENT SITE MONTHLY REPORT

June, 2013

Aerial Image of Kingston Ash Slide (05/01/2013)



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Feet

Date of imagery: 05/01/2013

Tennessee Valley Authority
Realty, GIS & Land Records

KINGSTON RECOVERY PROGRAM MANAGEMENT SITE

MONTHLY REPORT

June, 2013

SAFETY

- Fifty-two individuals attended site-specific Health, Safety and Environment (HSE) orientations during June, 2013 – 2,422 project-to-date. Forty-four site-specific refresher courses were conducted during the month of June, 2013 - 500 project-to-date.
- Seventy-three Safety Observation Reports (SORs) were submitted during June, 2013 – 4,034 year-to-date; 4,034 are closed.
- Participated in the site “Town Hall” meetings with site workers covering results of employee survey.
- On June 19, 2013, a Site Construction Services (SCS) Augmented GUBMK employee was picking up 40-pound sandbags on the riprap rock slope below the first drainage ditch in the Central Area. As he was throwing the bags up the hill, the crew member reported that he felt a pop in his shoulder, immediately stopped work, and called his Head Foreman. The SCS crew member was transported to on-site medical for diagnosis and treatment, and was sent for further evaluation of injury at an offsite medical facility. Injury is a recordable, restricted work case. Foreman received disciplinary action for failure to relay appropriate instruction for completion of work. Contributing cause was workers failure to stop when unsure.
- On June 26 and 27, 2013, U.S. Environmental Protection Agency (EPA) Safety Manager, Brian Kovak, performed a Follow-up Safety and Health Audit on the site. All observations from previous audits had been completed and closed. No new findings were noted during the audit.

INFRASTRUCTURE / ASH MANAGEMENT

- Efforts for site maintenance, dust control, and Hazardous Waste Operations and Emergency Response (HAZWOPER) control continued.
- Continued recovering cenospheres from the onsite ponds.
- Continued borrow excavation.
- Started Kingston Entrance Restoration project.

ASH SLURRY AND POND TOTAL SUSPENDED SOLIDS (TSS) CONTROL

- Daily total suspended solids (TSS) sampling and pH monitoring were performed throughout the ash slurry system. The TSS of the Main Ash Pond effluent (Agri-Drain outlet) averaged 365.6 mg/L and the Stilling Pond effluent averaged 7.6 mg/L for June, 2013.
- The Ash Pond effluent polymer addition (Agri-Drain location) rates were adjusted based on TSS levels during June, 2013. Ascetic acid was applied to control pH in the Stilling Pond.
- The plant began June, 2013 with 7 units online and ended with 8 units operating.
- Bottom ash was dipped during June, 2013 from the Sluice Trench.

PLANT ASH STORAGE / INTERIM ASH STORAGE AREA (BALLFIELD)

- Trans-Ash placed and compacted dry flyash during June, 2013.
- Geosyntec provided Quality Control and Assurance during June, 2013 for the Interim Ash Staging Area (IASA).
- The Kingston Fossil Plant (KIF) operated from 7 to 8 units during June, 2013 - average of 7.68.

CENOSPHERE CONTROL ACTIVITIES

- Daily pond inspections were performed for all ponds.
- Collection of cenospheres by hydro-vacuum truck was not carried out in June, 2013 but is scheduled for early July.

ROUTINE MONITORING

Surface Water Sampling

- Continued routine surface water monitoring. Monthly Stilling Pond results received to-date have shown compliance with the outfall National Pollutant Discharge Elimination System (NPDES) permit.
- There were rainfall events on June 2, 5, 9, 18 and 29, 2013 that triggered storm flow sampling in Swan Pond Embayment.
- Automated monitoring stations (Hydrolabs) are online continuously monitoring surface water conditions at 6 locations; one in the Middle Embayment Settling Basin, two in the Clean Water Ditch (east and west), one at the Ash Pond Agri-Drains, and two in the Stilling Pond.
- Continued daily TSS monitoring at the Ash Pond Agri-Drains and Stilling Pond.

Air Sampling

- All air monitoring results for June, 2013 from the PM2.5 TVA air samplers were below the current Ambient Air Monitoring Plan (AAMP) action levels.

Biota Sampling

- Continued monitoring bird boxes for 2013 tree swallow season. Completed collection of tree swallow eggs and shipped to PACE for analysis.
- ORNL completed processing Spring fish samples and shipped to PACE for analysis in support of Long Term Monitoring (LTM) Program.
- Continued Benthic Invertebrate sampling in support of LTM.

Data Management

- Provided monthly surface water and air monitoring results to the EPA.

Non-Routine Sampling

- Continued sample collection and on-site moisture testing in support of dredge cell and ash stacking operations.
- Continued Geoprobe delineation and confirmation sampling support for Middle Embayment ash removal.
- Continued spoils runoff sampling from the two tanks of spoils material associated with the Perimeter Wall Stabilization (PWS) project.
- Completed move of sample retains to temporary onsite refrigerated storage connex and initiated disassembly and transfer of refrigeration barn to Walnut Orchard.
- Performed evaluation of Dredge Cell closure soil test plots at Gupton Farm.
- Collected oil sample from Griffin drum for waste profile analyses.

DREDGE CELL

- Completed Segment 1 perimeter berm construction, bringing the berm to final grade and fixing erosion damage.
- Completed ash stacking next to the Segment 1 berm and resumed stacking next to Segment 7, including excavating the corner of the Relic in Cap Area II.
- Completed final grading in the first part of Cap Area I prior to the flexible membrane liner (FML) placement; continued final grading in the remainder of Cap Area I by fixing damage caused by erosion and slope inclinometer installation.
- S&ME installed slope inclinometers in Cap Areas I and II.
- Continued drying of spoils in the relic area of the Dredge Cell and removing relic ash to the Lateral Expansion.
- Geo-Con continued perimeter wall stabilization (PWS) construction on Segments 5 and 6.
- Griffin continued operating the deep and shallow well points for dewatering of both Segments 6 and 5.
- P&J/CCS began the FML placement in Cap Area I on Friday, June 21.

LATERAL EXPANSION

- Began dressing spoils piles along Segment 2 in preparation for berm construction.
- Continued ash stacking in the Lateral Expansion as weather permitted.
- S&ME completed mitigation coring (secondary round of coring) in Segment 2, and continued first round of coring in Segment 3 with a total of 5 rigs.
- Geo-Con continued predrilling and jet grouting for defect repairs in Segment 2 and began repairs in Segment 3.
- Removed windrow piles in the Ash Pond and resumed stacking within the Ash Pond.

RIVER SYSTEM RESTORATION

- Addendum Report to the Groundwater Flow Model from Geosyntec was transmitted to the agencies for review on May 12, 2013.

EMBAYMENT RESTORATION AND RECREATION AREA DEVELOPMENT

- Completed Lakeshore Phase 1 construction. The completion date met the TVA milestone of June 29, 2013.
- Completed revisions to the Recreation and Restoration design drawings.
- Continued 30% design efforts for the Roane County Ballfield design.
- Began restroom construction on Lakeshore. Restroom scheduled to be completed by August 2013.

MIDDLE EMBAYMENT

- Ash removal from the Middle Embayment was carried out during June, 2013.
- Ash removal along the Clean Water Ditch completed and emphasis was switched to removal of bulk ash associated with T-2 sediment pond and associated berms.
- Bulk ash removal was completed in late June 2013 and work was switched to removal of Buttress Toe and J Road material to allow completion of the wall buttress near T-3 dike.
- Weekly Middle Embayment status reports were submitted.

ASH POND

- Ash Pond area was used for stacking when other areas were not available
- Ash Pond area received rock from excavation of T-2 dike in the Middle Embayment.

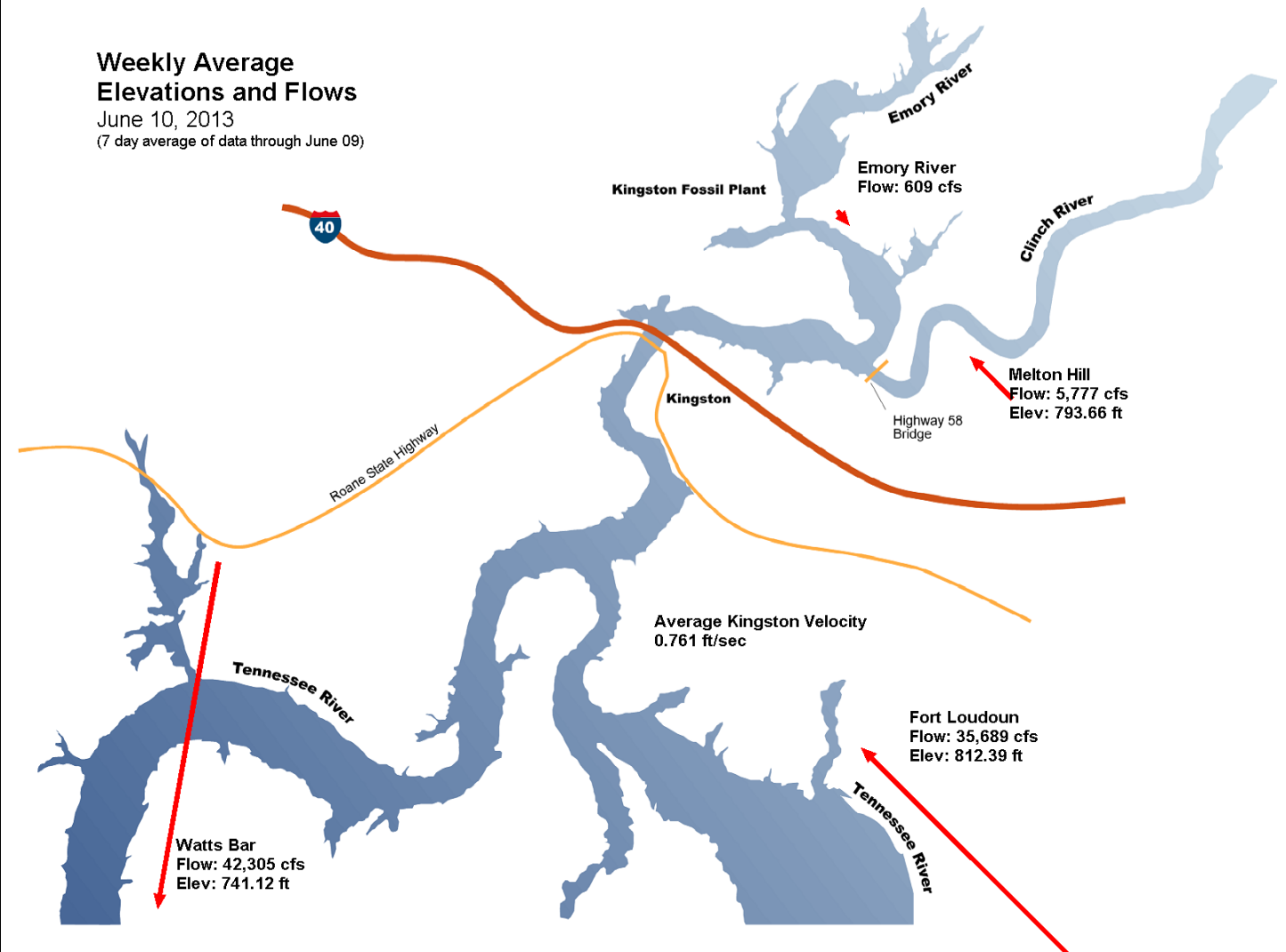
OUTREACH / COMMUNICATIONS

- Added weekly area resident updates to Kingston Ash Recovery (KRP) website.
- Sent weekly updates to the Community Advisory Group (CAG), public officials and members of the public who have signed up to receive weekly emails.
- Conducted the regular Public Tour of the site.
- Met with CAG to provide an update on the project.
- Updated administrative records with work plans and relevant documents.
- Continued to respond to calls from residents.
- Updated site bulletin boards.
- Held a Media Day event to mark the milestone of the last of the excavated ash being removed from the Middle Embayment.
- Completed the second revision of the Community Involvement Plan and submitted for approval.

RIVER OPERATIONS


Weekly Average Elevations and Flows

June 10, 2013
(7 day average of data through June 09)



[illegible][illegible]

LEGEND

 CONSTRUCTION COMPLETED

MITIGATION
EPA APPROVED

TEST PARCELS APPROVED TO DATE:

SEGMENT 1: TP9, TP10, TP11, TP12, TP13,
TP14, TP16, TP18, TP17, TP15, TP18, TP20,
TP21, TP22, TP23, TP24, TP25, TP26, TP27,
TP28, TP23, TP30, TP31, TP32, TP23, TP34

REQUIREMENT 2

SERIALS: TP701, TP702, TP703, TP704,
TP706, TP708, TP707, TP709, TP710,
TP711, TP712, TP713, TP714, TP715, TP716,
TP717, TP718, TP719, TP720, TP721, TP722

SEGMENT B: TP801, TP802, TP803, TP804,
TP805, TP806, TP807

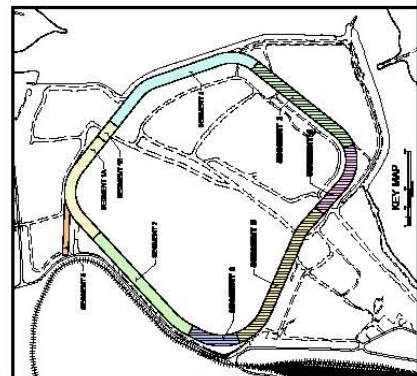
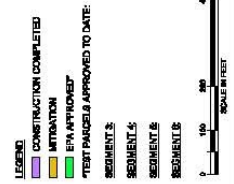
| Age group | Number of people |
|-----------|------------------|
| 0-14 | 100 |
| 15-24 | 150 |
| 25-34 | 200 |
| 35-44 | 250 |
| 45-54 | 300 |
| 55-64 | 350 |
| 65-74 | 380 |
| 75-84 | 350 |
| 85+ | 100 |

SCALE IN FEET

**PERIMETER WALL STABILIZATION
SEGMENTS 3, 4, 5, AND 6
CONSTRUCTION PROGRESS
AS OF JULY 13, 2013**

PWS - Construction and Assessment Status

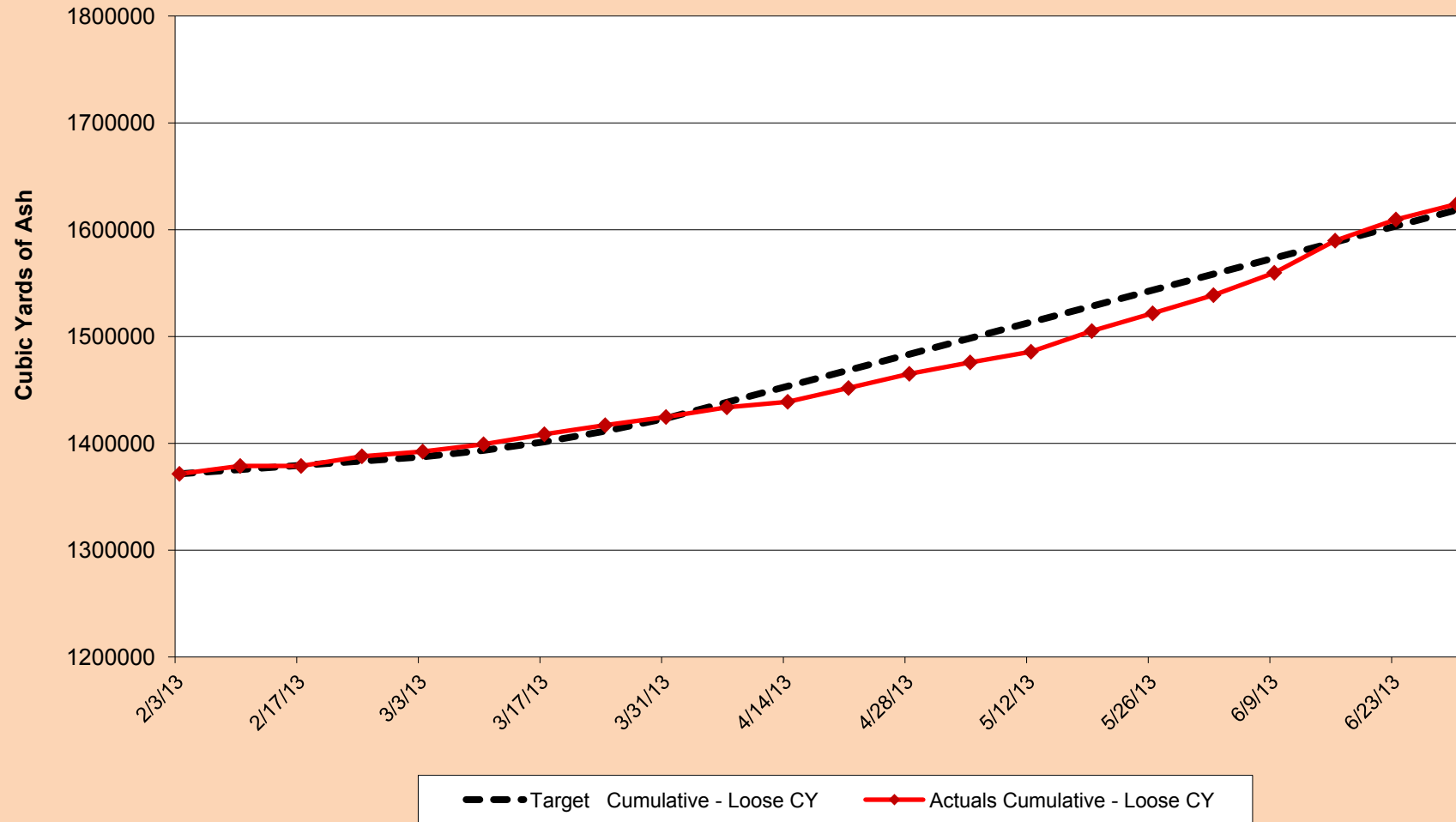
| | PWS CONSTRUCTION | | | | QC CONSTRUCTION | | | | DEFECT MITIGATION | | | | QC DEFECT MITIGATION | | | | COLD JOINT MITIGATION | | | | APPROVAL/ CONCURRENCE | | COMMENTS |
|-----------|------------------|-------|-------|----------|-----------------|----------------|-------------|-------------|-------------------|----------|-------------|-------------|----------------------|----------|-------------|-------------|-----------------------|----------|-----|-----|-----------------------|--|----------|
| | Installed | Cured | Cored | Assessed | Delineated | Field Addendum | Pre-Drilled | Jet Grouted | Cored | Assessed | Pre-Drilled | Jet Grouted | Cored | Assessed | Pre-Drilled | Jet Grouted | Cored | Assessed | TVA | EPA | | | |
| SEGMENT 4 | 100% | 100% | 63% | 63% | 38% | 38% | 38% | 38% | 38% | 38% | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0% | 0% | 28-Sep-2013 | | |
| SEGMENT 3 | 100% | 100% | 83% | 58% | 25% | 25% | 25% | 25% | 8% | 0% | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0% | 0% | 07-Sep-2013 | | |
| SEGMENT 6 | 98% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 05-Dec-2013 | | |
| SEGMENT 5 | 68% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 08-Feb-2014 | | |



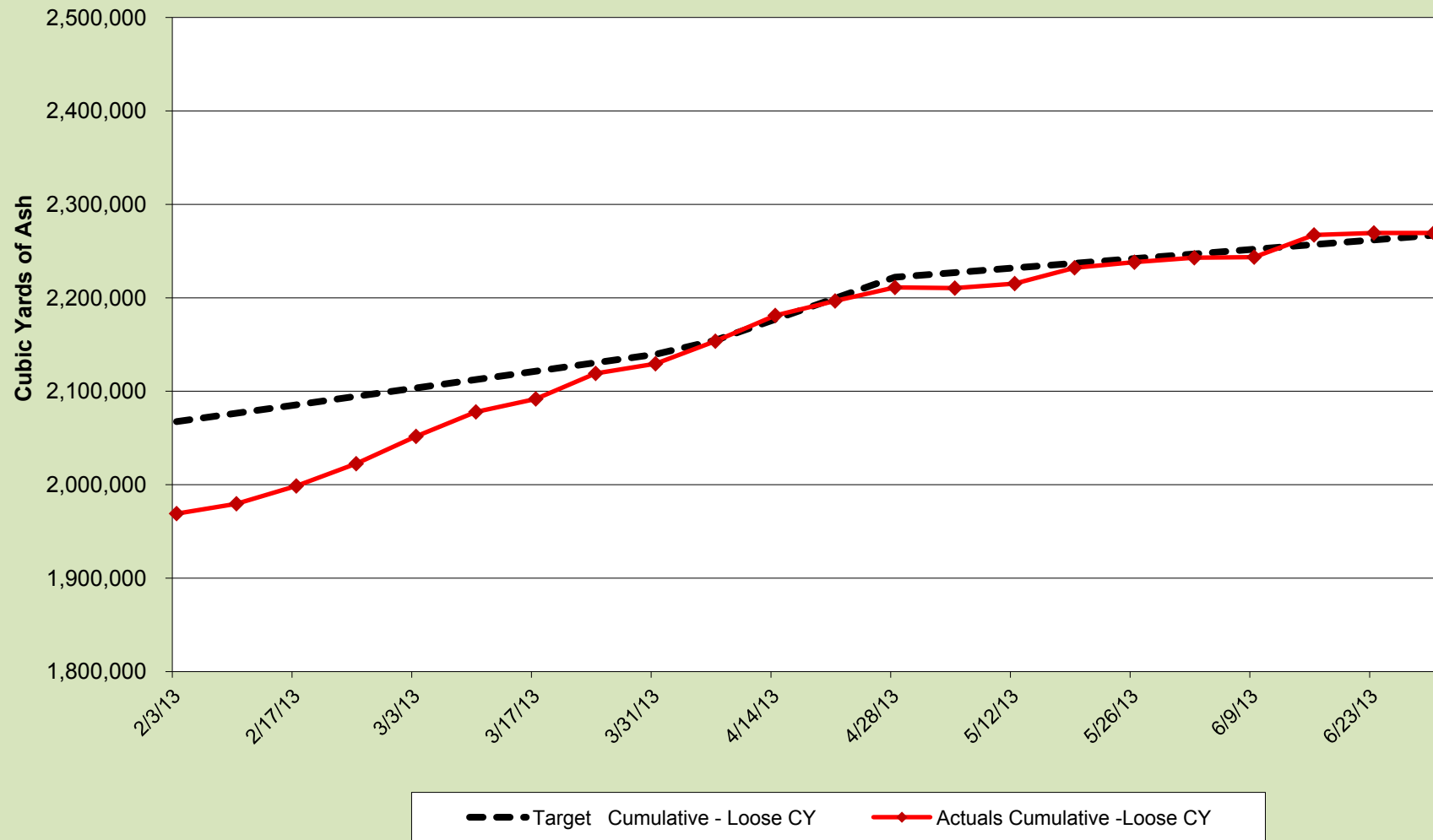
| Kingston Recovery Program Management Site - June, 2013 - Field Report | | | | |
|---|-----------------------------|---------|------------------------------|---------------------------|
| Safety | | | Monthly Total | FY – Cumulative Total |
| Near Misses | | | 0 | 0 |
| First Aid Incidents | | | 0 | 6 |
| Recordable Incidents | | | 1 | 2 |
| Recordable Lost Time Incidents | | | 0 | 0 |
| Environmental | Matrix | Samples | Analyses | Results |
| Organization - TVA | Surface / Utility Water | 5,861 | 48,786 | 244,595 |
| Organization - TVA | Groundwater (Spring & Well) | 266 | 2,830 | 13,769 |
| Organization - TVA | Ash | 766 | 1,296 | 9,509 |
| Organization - TVA | Soil / Sediment | 3,854 | 6,096 | 36,553 |
| Organization - TVA | Biota | 5,549 | 13,499 | 141,007 |
| Work Description | | | Period Work Performed (CYIP) | PTD Work Performed (CYIP) |
| Ash Removal / Excavation | | | | |
| Total Removed from Middle Embayment | | | - | 1,016,864 |
| Total Removed from North Embayment | | | - | 1,010,322 |
| Total Removed from Settling Basins / Dike 2 | | | 63,033 | 200,897 |
| Total Removed from Swan Pond Road Corridor | | | 156 | 2,558 |
| Excavated Total | | | 63,189 | 2,230,640 |
| Work Description | | | Period Work Performed (CCY) | PTD Work Performed (CCY) |
| Placement | | | | |
| Total Placed in Dredge Cell | | | 24,604 | 1,563,734 |
| Total Placed in Lateral Expansion | | | 75,166 | 817,550 |
| Total Placed in Ash Pond | | | 9,213 | 435,258 |
| Total Placed in Stilling Pond | | | - | 17,641 |
| Placed Total | | | 108,983 | 2,816,542 |
| Work Description | | | Period Work Performed (CCY) | PTD Work Performed (CCY) |
| Storage Handling | | | | |
| Total Removed from Lateral Expansion | | | 795 | 55,241 |
| Total Removed from Dredge Cell | | | 116,535 | 1,220,154 |
| Total Removed from Ballfield | | | 7,426 | 523,107 |
| Removed from Storage Total | | | 124,757 | 1,798,502 |
| Net Removed to(from) Ballfield Storage | | | 33,066 | (129,210) |

For period ending June 30, 2013.

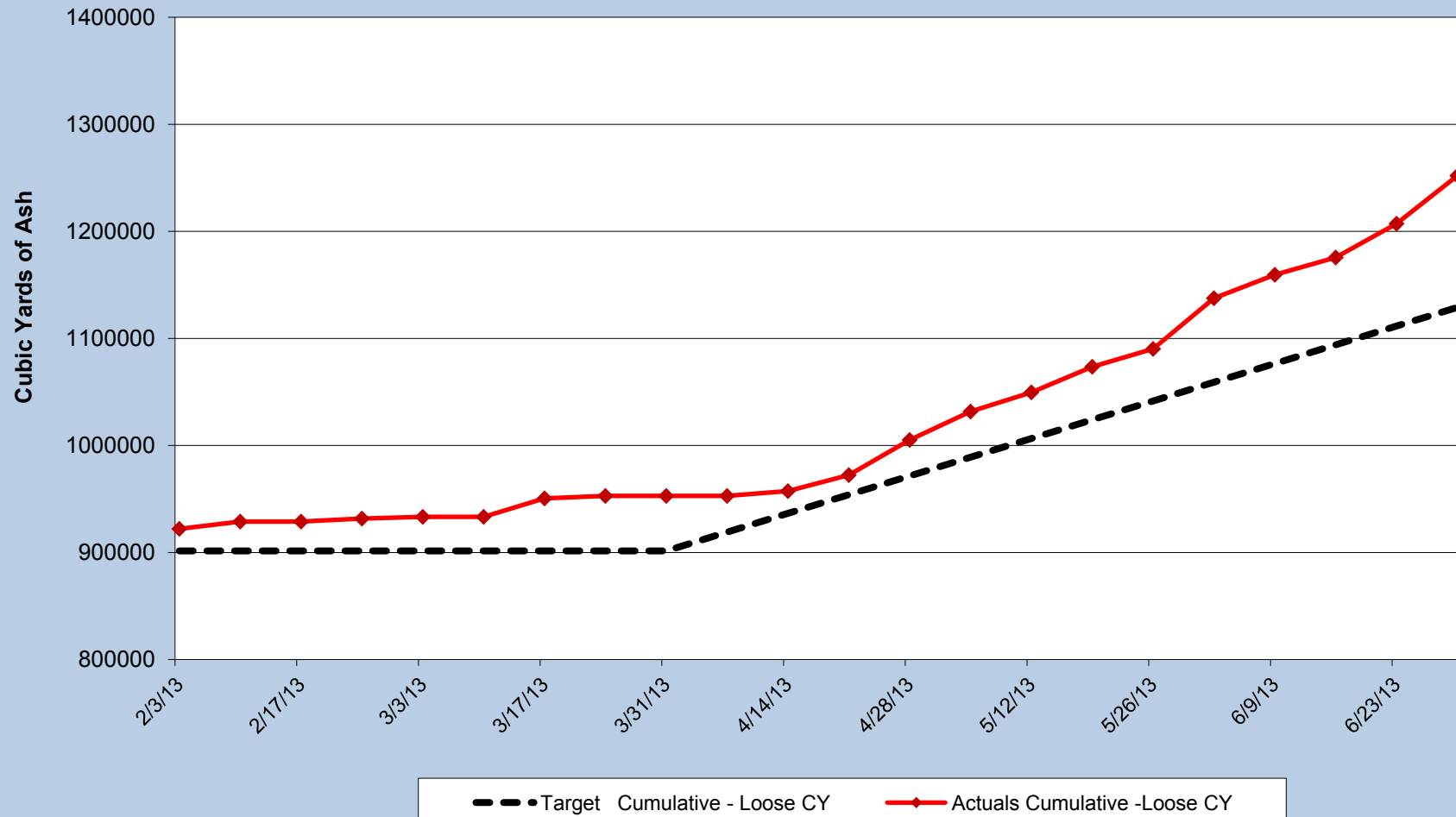
**Ash Excavation from Middle Embayment
Weekly as of June 30, 2013**



Ash Stacking in Dredge Cell Weekly as of June 30, 2013



Ash Stacking in Lateral Expansion Weekly as of June 30, 2013



Perimeter Wall Stabilization Segments 5 and 6 Weekly as of June 30, 2013

